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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/075,032	02/12/2002	Roger R. Brinkley	7784-000338	6309

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EXAMINER

AMINZAY, SHAIMA Q

ART UNIT	PAPER NUMBER
2684	

DATE MAILED: 12/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/075,032	BRINKLEY ET AL.	
	Examiner	Art Unit	
	Shaima Q. Aminzay	2684	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>Sep.13/02, M.16/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections – 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action: in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 4-11, and 14-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wright et al. (Wright, US Patent No. 6,160,998) in view of Houlberg et al. (Houlberg, US Patent No. 5,307,505).

Regarding claims 1 and 11, Wright teaches the remotely downloading data to a selected one of a plurality of avionics line replaceable units (LRUs) on an aircraft (see for example, column 1, lines 42 – 47 and column 7 lines 2 – 7, remotely downloading data to selected units (LRU is the aircraft units such as navigation and etc. equipments)), and method comprising: transmitting a message wirelessly to a receiver on the aircraft identifying an LRU having data to be downloaded (see for example, Figures 13 and 14 and starting column 6, line 59 and ending column 7, line 8 and column 7, lines 13 – 29 and column 6, lines 25 – 41); and wirelessly downloading data from the identified LRU aircraft (see for

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example, column 1, lines 42 – 47 and Figures 13 and 14 and starting column 6, line 59 and ending column 7, line 8), and communication to an aircraft data services link (ADSL) dependent upon the identified LRU (see for example, column 1, lines 42 – 47 and Figures 13 and 14 and starting column 6, line 59 and ending column 7, line 8, the aircraft data service (aircraft avionics and communication links)).

However, Wright does not specifically teach of selectively switching a communication path from [the identified LRU] to [an aircraft data services link (ADSL) dependent upon the identified LRU]; and [wirelessly downloading data from the identified LRU] utilizing the selectively switched communication path.

In a related art dealing with an avionics programming terminal, Houlberg teaches of selectively switching a communication path from [the identified LRU] to [an aircraft data services link (ADSL) dependent upon the identified LRU]; and [wirelessly downloading data from the identified LRU] utilizing the selectively switched communication path (see for example, column 2, lines 10-48, column 6, lines 20 – 36, selectively path switching takes place).

It would have been obvious to one of ordinary skill in the art at the time invention was made to have included into Wright's remotely downloading aircraft data, Houlberg's switching means, for the purpose of reprogramming (downloading data) selected avionics equipment in a rapid manner (Houlberg, see for example, column 2, lines 5-9).

Regarding claim 20, Wright teaches the downloading data to a selected one of a plurality of avionics line replaceable units (LRUs) onboard an aircraft (see for example, column 1, lines 42 – 47, and column 4, lines 49 – 55, and 48-51, remotely downloading data to selected units (LRU is the aircraft units such as navigation and etc. equipments) onboard), said apparatus comprising: a wireless radio transceiver (see for example, column 9, lines 21-28), a communication management unit server responsive to said wireless radio transceiver (see for example, column 9, lines 21-28, column 29, lines 15-24).

However, Wright does not specifically teach of [remotely controllable] switch responsive [to said communication management unit server] to configure a data path between said [wireless radio transceiver] and a [selected one of said LRUs for downloading of data].

In a related art dealing with an avionics programming terminal, Houlberg teaches of and a [remotely controllable] switch responsive [to said communication management unit server] to configure a data path between said [wireless radio transceiver] and a [selected one of said LRUs for downloading of data] (see for example, column 2, lines 10-48, column 6, lines 20 – 36, selectively path switching takes place).

It would have been obvious to one of ordinary skill in the art at the time invention was made to have included into Wright's remotely downloading aircraft data, Houlberg's switching means, for the purpose of reprogramming (downloading data) selected avionics equipment in a rapid manner (Houlberg,

see for example, column 2, lines 5-9).

Regarding claims 4 and 14, Wright in view of Houlberg, teach all the claimed limitation as recited in claims 1 and 11. Wright further teaches the means for wireless transmitting and receiving comprises a spread spectrum receiver and transmitter (column 9, lines 20 – 49 and column 12, lines 9 – 40, the spread spectrum transceiver).

Regarding claims 5 and 15, Wright in view of Houlberg, teach all the claimed limitation as recited in claims 1 and 11. Wright further teaches the operational program configuration file that contains criteria for automated routing (see for example, column 26, lines 50-5820 – 49 and column 12, lines 9 – 40, the spread spectrum transceiver).

Regarding claims 6 and 16, Wright in view of Houlberg, teach all the claimed limitation as recited in claims 1 and 11. Houlberg further teaches [wireless download] of data upon a triggering condition (see for example, column 56, lines 7-23, it is inherent for a clock to trigger (creating trigger condition for downloading)).

Regarding claims 7 and 17, Wright in view of Houlberg, teach all the claimed limitation as recited in claims 6 and 16. Wright further teaches [triggering

condition] is setting of a parking brake (see for example, column 9, lines 57-65, and column 11, lines 43-49).

Regarding claims 8 and 18, Wright in view of Houlberg, teach all the claimed limitation as recited in claims 6 and 16. Wright further teaches accumulating records of [wireless downloads] (see for example, column 1, lines 48-67, the accumulating data (records) downloads).

Regarding claim 10, Wright in view of Houlberg, teach all the claimed limitation as recited in claim 1. Houlberg further teaches header file for the identified LRU to download (see for example, columns 61-62, lines 27-continued to end of the columns 63-64).

Regarding claim 10, Wright in view of Houlberg, teach all the claimed limitation as recited in claims 6 and 16. Wright further teaches data [wirelessly downloaded] comprises operational software (see for example, column 2, lines 21-24, and column 4, lines 24-34).

3. Claims 2, 3, 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wright et al. (Wright, US Patent No. 6,160,998) in view of Houlberg et al. (Houlberg, US Patent No. 5,307,505) as applied to claims 1 and 11 above, and further in view of Weiler et al. (Weiler, US Patent No. 5,970,395).

Regarding claim 2, Wright in view of Houlberg, teach all the claimed limitation as recited in claim 1. Wright in view of Houlberg, do not specifically teach of [wherein the selectively switched] communication path is an ARINC 429 communication path.

In a related art dealing with avionics equipment, Weiler teaches of [wherein the selectively switched] communication path is an ARINC 429 communication path (column 6, lines 14 – 22).

It would have been obvious to one skilled in the art at the time of invention to have included into Wright and Houlberg's remotely downloading aircraft data communication and path switching means, Weiler's bus, for the purposes of using a standardized bus already present on aircraft (thus preventing the need for additional hardware) as taught by Weiler.

Regarding claim 3, Wright in view of Houlberg and Weiler, teach all the claimed limitation as recited in claim 2. Wright further teaches, communication paths utilizing a software-controlled switch (see for example, column 6, lines 31-49). And, Weiler further teaches [selectively switching a communication path comprises selectively switching one of a plurality of] ARINC 429 communication paths [utilizing a software-controlled switch].

Regarding claim 12, Wright in view of Houlberg, teach all the claimed

limitation as recited in claim 11. Wright in view of Houlberg, do not specifically teach of [selectively switch a communication path to the identified LRU to an aircraft data services link (ADSL) dependent upon the identified LRU] and [further configured to selectively switch a plurality] of ARINC 429 communication paths.

In a related art dealing with avionics equipment, Weiler teaches of [selectively switch a communication path to the identified LRU to an aircraft data services link (ADSL) dependent upon the identified LRU] and [further configured to selectively switch a plurality] of ARINC 429 communication paths (column 6, lines 14 – 22).

It would have been obvious to one skilled in the art at the time of invention to have included into Wright and Houlberg's remotely downloading aircraft data communication and path switching means, Weiler's bus, for the purposes of using a standardized bus already present on aircraft (thus preventing the need for additional hardware) as taught by Weiler.

Regarding claim 13, Wright in view of Houlberg and Weiler, teach all the claimed limitation as recited in claim 12. Wright further teaches, a software-controlled switch (see for example, column 6, lines 31-49). And, Weiler further teaches [a software-controlled switch configured to selectively switch] said ARINC 429 communication.

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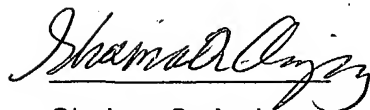
Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892 form.

Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shaima Q. Aminzay whose telephone number is 703-305-8723. The examiner can normally be reached on 7:00 AM -5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on 703-308-7745. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Shaima Q. Aminzay

(Examiner)

November 29, 2004



NAY MAUNG
SUPERVISORY PATENT EXAMINER

Nay Maung

(SPE)

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